

Amendments according to Article 34 PCT

**Capsules for oral administration having a delayed
release of the content of the capsule**

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The present invention relates to the use of a polyphenol-containing plant extract for delaying the release of the content of gelatine capsules.

10 In case of many dietary supplement products, dietetic
products and medicaments, it is desirable that the active
ingredient is released from the administration form at a
certain time after ingestion or in a certain portion of the
gastrointestinal tract. It is the object of this temporally
15 or locally controlled release either to protect the user
against unpleasant properties of the active ingredient (e.g.
bad taste, mucosa irritant effect, unpleasant eructation) or
to protect the active ingredient against degradation by the
aggressive gastric juice or to achieve an improved uptake of
20 the active ingredients into the body by release in the small
intestine.

This delayed release is particularly desirable in those
cases, when the active ingredients to be applied are plant
25 extracts which cause an unpleasant taste or exhalation upon
eructation in case of too rapid disintegration of the capsule
or when substances are contained which may be decomposed in
the stomach.

30 A preferred administration form for said dietary supplement
products, dietetic products and medicaments is a capsule
which may be filled with liquid, semi-solid or solid sub-

Claims

1. Use of a polyphenol-containing plant extract for delaying the release of the content of gelatine capsules,
5 wherein the polyphenol-containing plant extract is a component of the content of the capsule.
2. Use according to claim 1, characterized in that the
10 content of the capsule comprises a polyphenol-containing plant extract and a liquid, water-immiscible carrier.
3. Use according to claim 1 or 2, characterized in that the
polyphenol-containing plant extract is produced from at least
15 one of the plants *Camellia sinensis*, *Crataegus monogyna*, *Ginkgo biloba*, *Humulus lupulus*, *Hypericum perforatum*, *Krameria triandra*, *Potentilla tormantilla*, *Pterocarpus marsupium*, *Quercus species*, *Uncaria gambir*, *Vaccinium myrtillus* or *Vitis vinifera*.
- 20 4. Use according to any one of claims 1 to 3, characterized in that the liquid, water-immiscible carrier is selected from the group of polyunsaturated oils, particularly oils having a high content of omega-3 fatty acids.
- 25 5. Use according to any one of claims 1 to 4, characterized in that the fluid, water-immiscible carrier is selected from perilla seed oil, evening primrose seed oil, currant seed oil, fish oil, borage oil and linseed oil.
- 30 6. Use according to any one of claims 1 to 5, characterized in that the content of the capsule contains further substances selected from the group comprising plant oils, partially or completely hydrogenated plant oils, beeswax,

lecithin, neutral oil, hardened fat, highly dispersed silicon dioxide and sorbitan monooleate.

7. Method for delaying the release of the content of
5 gelatine capsules, wherein a polyphenol-containing plant extract is incorporated into the content of the capsules.

8. Method according to claim 7, characterized in that a
polyphenol-containing plant extract and a liquid, water-
10 immiscible carrier are incorporated into the content of the capsules.

9. Method according to claim 7 or 8, characterized in that
the polyphenol-containing plant extract is produced from at
15 least one of the plants *Camellia sinensis*, *Crataegus monogyna*, *Ginkgo biloba*, *Humulus lupulus*, *Hypericum perforatum*, *Krameria triandra*, *Potentilla tormantilla*, *Pterocarpus marsupium*, *Quercus species*, *Uncaria gambir*, *Vaccinium myrtillus* or *Vitis vinifera*.

20 10. Method according to any one of claims 7 to 9, characterized in that the liquid, water-immiscible carrier is selected from the group of polyunsaturated oils, particularly oils having a high content of omega-3 fatty acids.

25 11. Method according to any one of claims 7 to 10, characterized in that the liquid, water-immiscible carrier is selected from perilla seed oil, evening primrose seed oil, currant seed oil, fish oil, borage oil and linseed oil.

30 12. Method according to any one of claims 7 to 11, characterized in that further substances are incorporated into the content of the capsules, selected from the group

comprising plant oils, partially or completely hydrogenated plant oils, beeswax, lecithin, neutral oil, hardened fat, highly dispersed silicon dioxide and sorbitan monooleate.